## EXHIBIT I TO 2255 MOTION , TRANSCRIPT REFERENCES TO EXPERT TESTIMONY BY DER-YEGHIAYAN

	Testifying Witness	Transcript Page#	Topic of Discussion	Area of Expertise	Some of the objections that should have been made
	A. Der-Yeghiayan ("D-Y")	65		Knowledge of chemist or	Calls for expert testimony, witness not qualified, lay
	A. Dei Teginayan ( D 1 )	05	seized from the mail coming into	toxicologist	witness not permitted to address. Rules 701, 702.
				toxicologist	· ·
1			O'Hare International Airport		Foundation - it is not clear who seized the items
					described. Hearsay - D-Y may simply have been
					repeating what he had been told.
	D-Y	65	Explanation of meaning of	Legal opinion; knowledge of	Calls for expert testimony, witness not qualified, lay
2			Schedule I and Schedule II	chemist or toxicologist	witness not permitted to address. Rules 701, 702.
			controlled substances		
	D-Y	67	Identification of item found in mail	Legal opinion; knowledge of	Calls for expert testimony, witness not qualified, lay
			as ecstasy pills	chemist or toxicologist	witness not permitted to address. Rules 701, 702.
3			,,		Foundation - it is not clear who seized the items
					described. Hearsay - D-Y may simply have been
<u> </u>	D.V	C0	Evaloration of field toot to	Knowledge of showist or	repeating what he had been told.
	D-Y	68	Explanation of field test to	Knowledge of chemist or	Calls for expert testimony, witness not qualified, lay
			[presumptively] identify drugs,	toxicologist	witness not permitted to address. Rules 701, 702.
4			performed by D-Y		Explanation is irrelevant under Rule 402, unfair
1					prejudice, misleads jury, under Rule 403 -field tests
					are not reliable for drug identification. Confirmation is
					required by lab testing.
	D-Y	69	Witness testifies he tested	Knowledge of chemist or	Calls for expert testimony, witness not qualified, lay
			substances found in several	toxicologist	witness not permitted to address. Rules 701, 702.
5			envelopes, and the substances		
			were identified as various drugs.		
-	D-Y	72		Knowledge of showist or	Calla for avagent tootime and without an extension law
	D-Y	/2	Witness testifies there were	Knowledge of chemist or	Calls for expert testimony, witness not qualified, lay
			,	toxicologist	witness not permitted to address. Rules 701, 702.
			made from October 2011 through		Foundation - it is not clear who seized the items
			April 2013, and that number of		described, who tested what was seized, what kinds of
6			seizures was higher than any		tests were performed, and what results of any tests
0			previous year.		were. Hearsay - D-Y may simply have been repeating
					what he had been told. It is not possible that this one
					person was responsible for all seizures of suspected
					drugs at O'Hare Airport from October 2011 through
					April 2013.
	D-Y	73	Witness testifies that drug seizures	Knowledge of chemist or	Calls for expert testimony, witness not qualified, lay
		/3	9	toxicologist, manager of	witness not permitted to address. Rules 701, 702.
					· · · · · · · · · · · · · · · · · · ·
			exhibit, far exceeded drug seizures	laboratory, etc.	Foundation - it is not clear who compiled the data the
			in some unknown number of prior		witness is referencing, whether any suspected drugs
7			years.		from prior years or in time of SR investigation when D-
'					Y was directly involved, were properly tested and
					identified, what drugs were seized and identified, or
					how any experience from prior years was relevant.
					Hearsay - D-Y may simply have been repeating what
					he had been told.
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	D-Y	74-75	Silk Road ("SR") website, illegality	Legal opinions re illegality of	Calls for expert testimony, witness not qualified, lay
8			of items listed for sale on the SR; comparisons made by D-Y between items advertised on the SR and drug seizures that were being made at O'Hare International Airport	advertised substances; drug expertise, knowledge of chemist or toxicologist who identified items seized at O'Hare;	witness not permitted to address. Rules 701, 702.
9	D-Y	75	Whether search warrants were required for border searches	Legal opinion	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
10	D-Y	76	These are the three ecstasy pills, right? D-Y: Correct.	Drug identification expertise - chemist, toxicologist, etc.	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702. Foundation - it is not clear who identified these items as ecstasy pills.
11	D-Y		Description of drugs being seized by HSI, identification of LSD, D-Y claims to have personally tested the suspected controlled substance.	Drug identification expertise - chemist, toxicologist, etc.	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702. Foundation - it is not clear who seized the items described by D-Y. Hearsay - D-Y may simply have been repeating what he had been told about the seizure.
12	D-Y		Identification of items shown in photograph as various drugs amphetamine, ecstasy pills, MDMA, crystal	Drug identification expertise - chemist, toxicologist, etc.	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702. Foundation - it is not clear who seized the various items described by D-Y, or who, if anyone, tested the supposed drugs. Hearsay - D-Y may simply have been repeating what he had been told about the seizures and any drug identification
13	D-Y		Identification of various items as drugs from one vendor; testimony that various items identified as drugs tested positive as drugs.	Drug identification expertise - chemist, toxicologist, etc.	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702. Foundation - it is not clear who supposedly tested the various items described by D-Y. Hearsay - D-Y may simply have been repeating what he had been told about the seizures and any drug identification
14	D-Y		Testimony that various drugs were received from one particular vendor, the same drugs as offered on the SR.	chemist, toxicologist, etc.	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702. Foundation - it is not clear who supposedly received or tested the various items described by D-Y. Hearsay - D-Y may simply have been repeating what he had been told about the seizures and any drug identification
15	D-Y		Explains what a "dot onion" web address is, what the Tor network is, how the Tor network that "anonymizes your traffic, anonymizes who you are, and allows you to visit Tor hidden services.	Internet expertise, expertise with Tor, the Dark Web, Tor hidden services, "dot onion" addresses,	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
16	D-Y	85	Whether the Tor network is illegal	Legal expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.

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	D-Y	85	How using the Tor network differs	Internet expertise, expertise with	Calls for expert testimony, witness not qualified, lay
17			from browsing the internet with "an ordinary browser:	Tor, expertise with "ordinary browsers."	witness not permitted to address. Rules 701, 702.
18	D-Y	86	How Tor protects anonymity, what it conceals, what an IP address is, whether it is unique, what IP addresses are used for	Internet expertise, Tor expertise, computer network traffic, how IP addresses are created and assigned, how IP addresses are used in network traffic	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
19	D-Y		Witness provided video showing how to sign onto the Tor network, how the witness thinks that IP addresses are used on the internet, also showed a dot onion address and explained how that is used on the Tor network, how he thinks IP addresses reveal computer locations, how Tor shows IP addresses that do not reflect a device's actual location	Internet and Tor expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
20	D-Y	91	Explains what an internet service provider is, what technical services they provide, including provision of IP addresses		Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
21	D-Y	92	How Tor hides a user's location	Internet and Tor expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
22	D-Y	93-95	What a computer server is; how to locate computer servers; how to use the who.is website	Computer science or Internet expertise or computer network expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
23	D-Y		Explanation of how the Tor browser works and hides IP addresses	Internet and Tor expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
24	D-Y	143	What kind of drug is testosterone	Chemistry or biochemistry expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
25	D-Y		What is bitcoin - a virtual currency, what are its advantages, how it anonymizes users	Cryptocurrency expertise, knowledge of bitcoin in particular	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
26	D-Y	152	How do payments with bitcoin compare with payments with credit cards	Cryptocurrency and credit card payment expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
27	D-Y	152	Is using bitcoin illegal	Legal opinion	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
28	D-Y		How can bitcoin be acquired, what are bitcoin exchangers	•	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
29	D-Y	153	How does buying bitcoin compare with exchanging dollars for foreign currency	, , , , , , , , , , , , , , , , , , , ,	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.

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30	D-Y	153-154	How did the price of bitcoin fluctuate over time	Cryptocurrency valuation expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
31	D-Y	154-158	Government demonstration of purchase of bitcoin	Bitcoin expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
32	D-Y	158	What is a bitcoin address, how does it work, like a bank account number	Bitcoin and banking expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
33	D-Y	158-159	Bitcoin address is an account that exists so the bitcoin has it's called a block chain and it's what is its internal ledger that basically documents all transactions to and from It is basically using those addresses, and they are all part of what's called, it is the block chain	Bitcoin expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
34	D-Y	159	Is bitcoin controlled by like a government? Is it a government-issued currency? No, it is not.	Bitcoin expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
35	D-Y	159	Who owns the computers that run the bitcoin network? It is public, something you could download, and once you download the program you become part of the network	Bitcoin expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
36	D-Y	160	If you have a transfer of money from one bank to another, who keeps track of that information? Generally the bank does	Banking expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
37	D-Y	160	So if you have bitcoin transferred, how is that kept track of? The transactions are recorded within the network, within the block chain, and since the block chain exists on every computer that runs the program, it constantly self-updates. So every transaction it will self-update	Bitcoin and blockchain expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
38	D-Y	160	Is there a single block chain? It is a universal block chain that everybody uses.	Blockchain expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
39	D-Y	161	What is a transaction ID number? The long string is a unique transaction number and it is also on the block chain as well	Blockchain expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
40	D-Y	162	So you said before that every time you do a bitcoin transaction, remind me, what happens to the block chain? A. The block chain updates.	Blockchain expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.

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	D-Y	163	Is there any information that ties	Blockchain expertise	Calls for expert testimony, witness not qualified, lay
			those addresses on the left to Mt. Gox, or this one to Silk Road? No,		witness not permitted to address. Rules 701, 702.
41			there is not. Is there any		
			information on the block chain that ties any of this money to you?		
			No.		
	D-Y	177	I know this came from the	International mailing expertise	Calls for expert testimony, witness not qualified, lay
42			Netherlands based on the stamp		witness not permitted to address. Rules 701, 702.
			that's on there		Hearsay.
	D-Y	178	plastic bags that had a brown	Chemistry or toxicology expertise	Calls for expert testimony, witness not qualified, lay
43			powder substance that later tested		witness not permitted to address. Rules 701, 702.
	D-Y	178	positive for heroin	Chamilatura antarria da arranda	Hearsay.
44	D-Y	1/8	Is this the same crack cocaine that we saw earlier? This is the same.	Chemistry or toxicology expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
44			we saw earner: This is the same.		Hearsay.
	D-Y	180	a clear plastic baggie, which	Chemistry or toxicology expertise	Calls for expert testimony, witness not qualified, lay
			contained a white, crystal-like		witness not permitted to address. Rules 701, 702.
45			substance that later on field-		Hearsay. Explanation is irrelevant under Rule 402,
			tested positive for cocaine using the reagent test kit.		unfair prejudice, misleads jury, under Rule 403 - field tests are not reliable for drug identification.
			the reagent test kit.		Confirmation is required by lab testing.
	D-Y	180	nearly all of the orders contained	Chemistry or toxicology expertise	Calls for expert testimony, witness not qualified, lay
			drugs, that were sent to the lab for		witness not permitted to address. Rules 701, 702.
46			testing, and nearly all of them		Hearsay.
			tested positive for the drug they		
	D.V	183	were supposed to be	Logal augustica	Calla for average toothing any with any not availified law
47	D-Y	183	were there any other illegal goods sold on the Silk road website? Yes	Legal expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
.,			Sold of the Sik roud Website. Tes		withess not permitted to dadress. Nates 701, 702.
48	D-Y	187	do you know what malware is?	computer science of software	Calls for expert testimony, witness not qualified, lay
40			Yes I do. It's a program that	expertise	witness not permitted to address. Rules 701, 702.
49	D-Y	190	Bitcoins are purely digital, right?	Bitcoin expertise	Calls for expert testimony, witness not qualified, lay
	D-Y	214 - 215	Yes.	Ditcoin ovportico	witness not permitted to address. Rules 701, 702.
	D-Y	214 - 215	What is a tumbler, a bitcoin tumbler? Der-Y explained what the	Bitcoin expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
50			thought. What is the advantage of		withess not permitted to address. Rules 701, 702.
			a tumbler? Der-Y answered.		
51	D-Y	219	What does encrypted mean?	Cryptology, computer security	Calls for expert testimony, witness not qualified, lay
	D-Y	230-231	Means just protected  What does instruction "be sure to	Computer file data and security,	witness not permitted to address. Rules 701, 702.  Calls for expert testimony, witness not qualified, lay
52	J-1	250-251		software, file structure, etc.	witness not permitted to address. Rules 701, 702.
J2			" mean	soletial s, the structure, etc.	The second permitted to dudices. Nates 701, 702.
	D-Y	247 - 248	What is a PGP signature and how is	Encryption technology	Calls for expert testimony, witness not qualified, lay
53			it used? Explain PGP public and		witness not permitted to address. Rules 701, 702.
			private keys		
54	D-Y	249	How is PGP public key used	Encryption technology	Calls for expert testimony, witness not qualified, lay
					witness not permitted to address. Rules 701, 702.

55	D-Y	263	most of the goods on sale on Silk Road were illegal drugs	Legal expertise	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
56	D-Y	295	What is Adium? Similar to Pidgin	Computer software, programs, applications	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
57	D-Y	299	How does Adium keep track of chats	Computer software, programs, applications	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
60	D-Y	368	What is benefit of PGP sign message? A way to authenticate	Digital communications security, encryption software and applications	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
61	D-Y	370-384	Witness prepared video demonstration to show jury how PGP keys work, played video and explained what was shown	Digital communications security, encryption software and applications	Calls for expert testimony, witness not qualified, lay witness not permitted to address. Rules 701, 702.
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